



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/529,690      | 03/29/2005  | Robert Peter Scholl  | DE 020220           | 1731             |

24737 7590 01/14/2008  
PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

ROY, SIKHA

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2879

|           |               |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

01/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

Application No.

10/529.690

**Applicant(s)**

SCHOLL ET AL.

**Examiner**

**Sikha Roy**

## Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The Amendment, filed on October 18, 2007 has been entered and acknowledged by the Examiner.

Cancellation of claims 3 and 4 and addition of new claim 10 have been entered.

#### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### ***Claim Objections***

Claims 7 and 10 are objected to because of the following informalities:

In claim 7, the recitation of 'the reduction in the size of the fused press-seal can be obtained as a function of the particular material of which coating is composed' does not specifically claim any structure of the lamp and hence is objected.

In claim 10, the recitation of 'the reduction in the size of the longitudinal extent of the part of the molybdenum that is not exposed can be obtained as a function of the particular material of which coating is composed' does not specifically claim any structure of the lamp and hence is objected.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0052608 to Morimoto et al., and further in view of U.S. Patent 6,777,875 to Steinman et al.

Regarding claim 1 Morimoto discloses (Figs. 1, 3 para [0018]-[0020], [0032],[0033]) a high pressure gas discharge lamp having at least one gastight fused press seal 12 between a glass like material and molybdenum 14, wherein molybdenum in the fused press seal is exposed to oxidizing environment and at least a part of the molybdenum that is exposed to oxidizing environment is covered with a coating 20 at least one type of metal oxide selected from titanium dioxide, tantalum oxide, zirconium dioxide, hafnium dioxide, silicon dioxide. Morimoto discloses the coating layer is formed of two layers one directly applied to the molybdenum and the other layer following the base layer. Morimoto discloses the layer following the base layer is made up of oxides.

Morimoto is silent about the coating formed of at least one of nitride selected from TiN, ZrN, HfN, AlN and or a carbide selected from TiC, ZrC, HfC and the carbide and/or nitride forms the layer of the coating that is applied directly to molybdenum.

Steinman in same field of endeavor discloses (column 1 lines 46-67) the coating on the molybdenum can be chosen from titanium nitride or chromium carbide.

Steinman further teaches these nitrides and carbides are suitable because they do not lead to increased brittleness of molybdenum end portion and they are thermally stable at very high temperatures.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use nitrides or carbides for the base layer of Morimoto for carbides for reducing brittleness of molybdenum end portion and thermal stability at very high temperatures.

Regarding claim 2 Morimoto discloses ([0036]) the thickness of the coating layer is 50nm to 3000nm.

Regarding claims 8 and 9 Steinman discloses (column 3 lines 1-3) the lamp is used for projection purposes.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0052608 to Morimoto et al., U.S. Patent 6,777,875 to Steinman et al. and further in view of JP 2002260581 to Kamimura et al.

Regarding claim 5 Morimoto discloses the following layer comprising SiO<sub>2</sub> but does not disclose the following layer composed of Al<sub>2</sub>O<sub>3</sub>.

Kamimura in same field of endeavor discloses (para [0107]) the coating layer formed of SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> preventing oxidation and hence these are art recognized equivalents.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use  $\text{Al}_2\text{O}_3$  instead of  $\text{SiO}_2$  as disclosed by Kamimura because the two materials are art recognized equivalents.

Regarding claim 6 Steinman discloses the base layer comprising titanium nitride but does not discloses this layer composed of  $\text{AlN}$ .

Kamimura in same field of endeavor discloses (para [0103]) the coating layer formed of  $\text{TiN}$ ,  $\text{AlN}$  and hence these are art recognized equivalents.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use  $\text{AlN}$  instead of  $\text{TiN}$  as disclosed by Kamimura because the two materials are art recognized equivalents.

Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0052608 to Morimoto et al., U.S. Patent 6,777,875 to Steinman et al.

Regarding claims 7 and 10 Morimoto and Steinman do not explicitly disclose the reduction in size of the fused seal portion (the longitudinal extent of the part of the molybdenum that is not exposed to oxidation) can be obtained as a function of a material of which coating is composed.

JP 2001102008 discloses (Figs. 2,5 English translation para [0031]-[0040]) a high pressure gas discharge lamp having at least one gastight fused press seal between a glass like material 4 and molybdenum 1, wherein molybdenum in the fused press seal is exposed to oxidizing environment and at least a part of the molybdenum

that is exposed to oxidizing environment is covered with a coating comprising silicon oxide  $\text{SiO}_2$ . JP 2001102008 further discloses (para [0042]) this fused press seal (closure section) 4 having improved thermal resistance, the length of the fused seap portion (the longitudinal extent of the part of the molybdenum that is not exposed to oxidation ) can be reduced thus resulting in small efficient envelope of the lamp.

The Examiner notes here that the limitation" reduction in size of the fused seal portion (claim 7) /the longitudinal extent of the part of the molybdenum that is not exposed to oxidation (claim 10) can be obtained as a function of a material of which coating is composed" is intended use limitation or intended manner. A recitation of the intended use or intended manner of claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use then it meets the claim *In re Otto*, 136 USPQ 458,459 (CCPA 1963).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Application/Control Number:  
10/529,690  
Art Unit: 2879

Page 7

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Sikha Roy*

Sikha Roy  
Primary Examiner  
Art Unit 2879